

INFORMATION SYSTEMS DEPARTMENT

CITY OF MANCHESTER  
NEW HAMPSHIRE 03101

**October 29, 2003**

REQUEST FOR INFORMATION

**IS-0402**

The City of Manchester will receive responses to this Request For Information (RFI) in the Office of the Information Systems Department, 100 Merrimack Street, City of Manchester, State of New Hampshire, until November 14, 2003 for the furnishing of information pertaining to:

An Automated Vehicle Location System (AVL).

The City of Manchester assumes no liability for any costs incurred by the vendor in the preparation or delivery of the response to this RFI, or other pre-sales meetings.

The issuance of this RFI does not imply any commitment to purchase any products or services from any vendor.

By: Diane S. Prew  
Director, Information Services

I. ADMINISTRATIVE INFORMATION

A. Purpose of this Request for Information

The City of Manchester is seeking information relative to the implementation of a city wide Automated Vehicle Location System (AVL).

We are requesting that vendors propose solutions including hardware and software that are compatible with the City's developing GIS environment.

B. Additional Information

All questions or requests for additional information in connection with this RFI should be directed to:

Diane Prew, Director Information Services  
(603) 624-6577  
[dprew@ci.manchester.nh.us](mailto:dprew@ci.manchester.nh.us)

C. RFI Response

Written responses will be accepted at the Information Systems Department on **November 14, 2003**. Please provide 6 copies. Upon review of the material submitted, presentations will be scheduled with the AVL Committee. The AVL Committee is made up of representatives from the Police Department, Fire Department, Public Works, Water Works, and Information Systems Department.

## II. CITY OF MANCHESTER INTRODUCTION

The City Manchester, New Hampshire is the largest city in the state with a population of 108,000. The City is currently developing a centralized, city wide Geographic Information System (GIS) that can be used by all departments. As part of this process, the City had a GIS Needs Assessment and Implementation Plan done by Camp Dresser & McKee. (CDM). During the assessment phase, the Police Department, Fire Department, Public Works, and Water Works expressed interest in an Automated Vehicle Location System. CDM has recommended that all interested departments work together to implement one solution that will meet all their needs.

### III. GIS ENVIRONMENT

The City is currently updating its existing planimetric mapping using color aerial photography flown in April 2003. Layers to be updated include wooded areas, fences, road centerlines, roads, buildings, water bodies, retaining walls, athletic fields, fire hydrants, driveways, swimming pools, parking lots, sidewalks, utility poles, large business signs, decks and porches. New orthophotography and a parcel GIS data layer are being developed of the entire city.

All mapping will meet Class 1 ASPRS and National Map Accuracy standards for 1"=100' scale mapping.

All existing GIS data has been organized on a central GIS server as ArcView shapefiles. GIS Intranet applications are being developed using ArcIMS to provide GIS data access to typical GIS users.

An enterprise-wide GIS database will be established using ArcSDE and existing ArcView shapefiles will be imported into an SDE Geodatabase.

#### IV. DESIRED APPLICATION FEATURES

Initially four City departments have expressed interest in the capabilities of an AVL system. We anticipate that interest will grow as we gain experience with the technology. Below, listed by department, are some of the features the City of Manchester would like to have in an Automated Vehicle Location System. This list is not intended to be limiting. Rather, it is provided as a foundation for comparison and evaluation of vendor proposals.

##### A. Police Department

1. Ability to locate and display cruiser locations in real time
2. Real time display refreshed in frequent intervals
3. Ability to locate and display priority calls
4. Ability to transmit the location of a vehicle going over a preset speed more often
5. Ability to know when blue lights and/or sirens are activated
6. Ability to know when a weapon is removed from it's holder in the vehicle
7. Ability to maintain a unit's location history and replay location history as needed
8. Ability to color-code different priority calls
9. Ability for certain vehicles to be able to view everyone's location, as if they were in Dispatch
10. Security/encryption – Ability to keep department activities secure from other departments using the system
11. Ability to flag dangerous situations, such as road/bridge closures
12. Ability to change the color of a unit when it goes out of service or arrives at a call
13. Ability to display the location of fire apparatus on an as needed basis
14. The system should be difficult to disable. Officers should not be able to shut it down.
15. Cell phone GPS receiver capabilities for the future
16. Accuracy within 3 meters
17. Ability to use CDMA
18. Ability for Dispatcher to turn car on/off. (Officer would not be able to start car without first requesting Dispatcher to provide him/her access).
19. Ability for Dispatcher to deactivate a cruiser if an officer has left it in a foot pursuit or if a cruiser was unaccounted for.

20. Interface AVL with Police CAD system

B. Fire

1. Track each fire apparatus and ambulance
2. Record the response times for each vehicle reporting to the scene
3. Interface AVL with Fire CAD system

C. Highway Department

1. Track snow removal and salting vehicles
2. Track which streets have been plowed and when
3. Track whether plows are down and/or if salters are running

D. Water Works

1. Assist in dispatch of emergency personnel
2. Assist in dispatch of customer services representatives for service calls
3. Assist in dispatch and operational control of watershed personnel